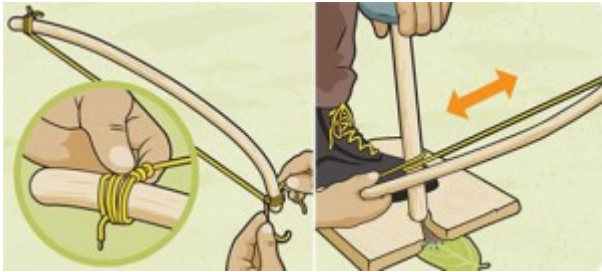


## FIRE WITHOUT MATCHES

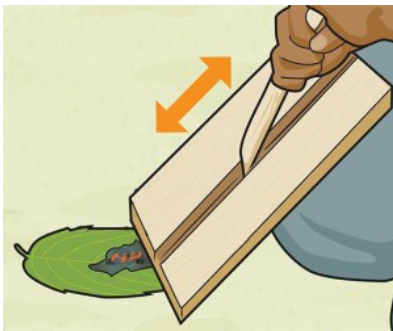
### Bow Drill Method



Notch a board or a flat piece of bark. To make a bow, stretch a string between the ends of a flexible branch and tie it in place, then use a second stick as a vertical spindle. Place the spindle inside the bow with one end in the notched base. Turn the bow once to loop the string around the spindle, then hold the

spindle's other end in place with a stone. Place a leaf under the notch and saw back and forth to create a coal. Then move it to the tinder bundle and blow gently into flame.

### Fire Plow



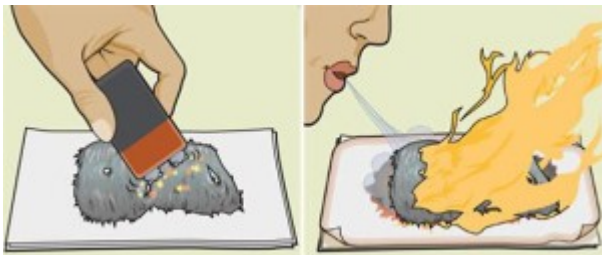
No string for a bow? Friction between a board and a plough can do the trick. Carve a central groove in the board and rub a branch rapidly up and down inside this trough. It's more work than a bow drill, and it takes longer, but you can still make a coal.

### Chocolate and a Soda Can



Use cheap, waxy chocolate to polish the bottom of a soda can until it gleams like a mirror. Angle it to reflect sunlight onto the tinder bundle (no ordinary flashlight ray will do) and, with luck, the focused light will ignite a flame.

### Steel Wool and a Battery



Rub the terminals of a battery against raw steel wool (not a Brillo pad). Keep at it, and electrical resistance will cause the steel wool to glow red hot. Once it does, move it to your pile of tinder and kindling, and blow the pile into flame.